

VII.—*Descriptions of newly discovered Spiders captured in Rio Janeiro by John Gray, Esq., and the Rev. Hamlet Clark.*
By JOHN BLACKWALL, F.L.S.

[Concluded from vol. x. p. 439.]

Epeira audax.

Length of the female $\frac{2}{3}$ ths of an inch; length of the cephalothorax $\frac{3}{20}$; breadth $\frac{1}{8}$; breadth of the abdomen $\frac{1}{4}$; length of an anterior leg $\frac{1}{2}$; length of a leg of the third pair $\frac{1}{4}$.

The eyes are seated on the anterior part of the cephalothorax; the four intermediate ones are placed on a prominence and form a square, the two anterior ones being the largest of the eight; the eyes of each lateral pair are seated on a tubercle, and are near to each other, but not in contact. The cephalothorax is compressed before, rounded on the sides, convex, particularly in the cephalic region, immediately behind the eyes, glossy, thinly clothed with whitish hairs, and has a large transverse indentation in the medial line; the falces are strong, conical, vertical, convex in front, and armed with teeth on the inner surface. These parts are of a brown colour, the latter being tinged with yellow at the extremity, on the inner side. The maxillæ are short, straight, powerful, and enlarged and rounded at the extremity; the lip is semicircular, but slightly pointed at the apex; and the sternum is heart-shaped, with small prominences on the sides, opposite to the legs: the colour of these parts is very dark brown, the extremity of the maxillæ and the apex of the lip having a pale yellowish hue. The legs are moderately long and robust, and are provided with hairs and fine spines; the first and second pairs are of a yellowish-brown colour, the metatarsi and tarsi being the darkest, and the tibiæ are marked with brown annuli, which are most conspicuous on their inferior surface; the femora of the third and fourth pairs are of a brownish-black colour, with the exception of the base, which has a pale yellowish hue, and the genual joint, the base and extremity of the tibiæ and of the metatarsi, and the whole of the tarsi, have a dark brown colour, that of the intermediate space of the tibiæ and metatarsi being yellowish-brown; the first pair is the longest, then the second, and the third pair is the shortest; each tarsus is terminated by claws of the usual number and structure. The palpi have a brown hue, the humeral and cubital joints being tinged with yellow, and have a curved pectinated claw at their extremity. The abdomen is triangular, with its vertex directed backwards, and is sparingly clothed with whitish hairs; it has three tubercles at its anterior extremity, two constituting the lateral angles and one intermediate, four disposed on each side, and three in a vertical row at its posterior extre-

mity, fourteen in all; the upper part is of a dull yellow colour, with three small dark brown depressions on each side of the medial line, forming an angle whose truncated extremity is directed forwards; the anterior part, which projects over the base of the cephalothorax, is of a brown colour; a short fusiform band of a brownish-black hue extends backwards from the anterior intermediate tubercle; it has an angular point on each side, near the middle, and comprises six minute pale yellow spots, two situated longitudinally between the lateral points, and four at its posterior extremity, forming a small trapezium; the sides and under part have a brown-black colour; each of the former is marked with three large, oblong, dull yellow spots, and the anterior side of the four tubercles situated thereon has a pale yellow hue; four obscure pale yellow lines extend along the under part, and the two intermediate ones meet at the spinners; the sexual organs are prominent, and have a long acute process, connected with their anterior margin, which is directed obliquely backwards and downwards; their colour is dark reddish-brown, and that of the branchial opercula is brown.

This spider is nearly allied to the *Epeira mexicana* of M. Lucas. (See the 'Hist. Nat. des Insect. Apt.' of M. Walckenaer, tom. ii. pp. 130, 131.)

Epeira edax.

Length of the female $\frac{1\frac{1}{6}}$ ths of an inch; length of the cephalothorax $\frac{1}{4}$; breadth $\frac{1}{3}$; breadth of the abdomen $\frac{2}{3}$; length of an anterior leg $\frac{9}{10}$; length of a leg of the third pair $\frac{1}{2}$.

The cephalothorax is compressed before, rounded on the sides, convex, pubescent, and has an indentation in the medial line; the falces are powerful, conical, vertical, and armed with teeth on the inner surface; the maxillæ are strong, and enlarged and rounded at the extremity; the lip is nearly semicircular, but somewhat pointed at the apex; the sternum is heart-shaped, with small eminences on the sides, opposite to the legs. The legs are long, and provided with hairs and spines; the first pair is the longest, then the second, and the third pair is the shortest; the tarsi are terminated by claws of the usual number and structure; the palpi are short, and have a curved pectinated claw at their extremity. These parts are of a dull yellow colour, the falces having a tinge of brown at their extremity. The eyes are disposed on the anterior part of the cephalothorax in two transverse rows, those of the anterior row being the larger and darker; the four intermediate ones are placed on a prominence and nearly form a square, those of the anterior pair, which are rather the largest of the eight, being a little wider apart than those of the posterior pair; the eyes of each lateral pair are

seated obliquely on a prominent tubercle, and are separated by a moderately wide interval. The abdomen is broad, triangular, and terminates in a point situated high above the spinners; it is clothed with light-coloured hairs, which are longest in front, is convex above, projects over the base of the cephalothorax, and is of a brownish-yellow colour, with a large brown triangular mark on the upper part, comprising within its broad anterior base four indented spots, which nearly form a square; the two posterior ones are larger and rather wider apart than the two anterior ones, and there is a small glossy convexity near its vertex, bearing a strong resemblance to a small eye; the sides are marked with obscure, slightly oblique, brown lines, and on the under part there is a large soot-coloured angular mark, whose vertex is near the spinners, which are encircled by pale yellow spots; the sexual organs are highly developed, with a long, pointed, spine-like process directed downwards from their anterior margin, and have a yellowish-brown hue.

The sexes bear a general resemblance to each other in colour; but the male, which is the smaller, differs from the female in various particulars. The anterior prominence of its cephalothorax, on which the four intermediate eyes are seated, is narrower and more protuberant. The legs are more abundantly supplied with spines, those on the inner side of the somewhat enlarged extremity of the slightly curved tibiæ of the second pair being the most numerous; a transverse row of short spines occurs at the extremity of the coxa of each posterior leg, on the under side, and there is a short, curved, red-brown process on the under side of the extremity of the coxa of each anterior leg: these limbs are somewhat irregularly marked with dark brown. The falces are slender, have a conical process at the base, in front, and are not tinged with brown at the extremity. The base of the maxillæ, lip, and margins of the sternum have a brown hue. The abdomen has some long coarse hairs, more or less erect, on its upper part, and the branchial opercula have a dark brown hue. The palpi are short; the cubital joint has a long bristle directed forwards from its extremity, and the radial joint is very protuberant underneath; the digital joint is large, of an oblong-oval form, tapering to a point, and has a long process at its base, greatly curved outwards, whose enlarged extremity has a dark red-brown hue; it is convex and hairy externally, concave within, and with this concavity the palpal organs are connected; they are very highly developed, very prominent and complicated in structure, with a pale yellow transversely striated piece at the base, in front, and a large slightly curved process extending along the upper side, whose broad recurved extremity projects two short strong processes curved towards each other; on the under side

there is a prominent obtuse process, and between these processes there are the extremities of two others; the colour of these organs is dark brown, red-brown, and pale yellow intermixed. The convex sides of the digital joints are directed towards each other.

Epeira rapax.

Length of the male $\frac{9}{32}$ nds of an inch; length of the cephalothorax $\frac{5}{32}$; breadth $\frac{1}{9}$; breadth of the abdomen $\frac{1}{8}$; length of an anterior leg $\frac{1}{2}\frac{1}{4}$; length of a leg of the third pair $\frac{1}{4}$.

The four intermediate eyes, which are seated on a frontal prominence of the cephalothorax, are nearly equal in size, and almost form a square, the two anterior ones being slightly wider apart than the posterior ones; the eyes of each lateral pair are placed on a tubercle, in a horizontal line, and are separated by a small space. The cephalothorax is compressed before, rounded on the sides, somewhat pointed in front, convex, glossy, and has a large indentation in the medial line; it is thinly clothed with pale yellowish hairs, and is of a reddish-brown colour, with a broad brown band extending along each side, whose margins are somewhat sinuous. The falces are conical, vertical, and armed with a few teeth on the inner surface; the maxillæ are short, straight, and enlarged at the extremity, and the lip is semicircular, but somewhat pointed at the apex. The colour of these organs is brown, their extremities having a brownish-yellow hue. The sternum is heart-shaped, with minute eminences on the sides, opposite to the legs; its colour is yellowish-brown, a few obscure dark brown streaks passing from the lateral margins to the medial line. The legs are robust, provided with hairs and spines, the latter being strongest and most numerous on the inferior surface of the somewhat enlarged tibiæ of the second pair, and there is a short spine-like process at the extremity of the coxæ of the first, third, and fourth pairs, on the under side; the first pair is the longest, then the second, and the third pair is the shortest; each tarsus is terminated by claws of the usual number and structure: these limbs have a brownish-yellow hue, and are marked with dark brown annuli. The palpi are short, and of a brownish-yellow colour, a brown transverse bar occurring near the middle of the digital joint; the cubital is smaller than the radial joint, and has a long bristle in front; the radial joint is protuberant on the inner and outer sides, and is supplied with long hairs; the digital joint is oval, with a process at its base, curved outwards, whose dark red-brown obtuse extremity is glossy; it is convex and hairy externally, concave within, comprising the palpal organs, which are highly developed, protuberant, complex in structure, with a large, prominent, curved,

pointed process on the outer side; and their colour is pale and dark red-brown intermixed. The convex sides of the digital joints are directed towards each other. The abdomen is oviform, thinly clothed with hairs, convex above, projecting over the base of the cephalothorax, and has a small conical prominence on each side of its anterior extremity; it is of a yellowish-brown colour, reticulated with fine brown lines; a pale yellow longitudinal streak in front of the upper part is followed by a large leaf-like band, with sinuous margins, which tapers to the spinners; this band is soot-coloured, freckled with yellowish-brown, and is marked with black transverse lines, whose extremities are curved forwards; the anterior part comprises a transverse pale yellow band, reticulated with brown, whose pointed extremities are in contact with the lateral conical prominences, and on each side of the medial line there are two dark brown indented spots, disposed in pairs, which describe a quadrilateral figure whose posterior side is the longest; the sides are the darkest in the medial line, and are marked with oblique black streaks; the middle of the under part is of a dark brown colour, freckled with yellowish-white, and there are two conspicuous spots of the latter hue placed transversely near the spinners.

Epeira munda.

Length of the male $\frac{7}{20}$ ths of an inch; length of the cephalothorax $\frac{1}{5}$; breadth $\frac{5}{20}$; breadth of the abdomen $\frac{1}{8}$; length of an anterior leg $\frac{7}{12}$; length of a leg of the third pair $\frac{5}{16}$.

The cephalothorax is compressed before, somewhat pointed in front, rounded on the sides, thinly clothed with hairs, convex, glossy, and has a large oblong indentation in the medial line; the falces are powerful, conical, vertical, convex in front, near the base, and armed with a few teeth on the inner surface; the sternum is heart-shaped, with minute eminences on the sides, opposite to the legs; the legs are robust, provided with hairs and spines, the latter being the strongest and most abundant on the inner surface of the tibiæ of the second pair; the first pair is the longest, the second and fourth pairs are equal in length, and the third pair is the shortest; the tarsi are terminated by claws of the usual number and structure. These parts are of a brownish-red colour; the sternum is the palest, and the extremity of the joints of the legs, the middle of the anterior part of the cephalothorax, and the medial indentation have a brown hue. The maxillæ are short, straight, and enlarged at the extremity; and the lip is semicircular, but somewhat pointed at the apex. These organs have a reddish-brown hue at the base, that of their extremities being brownish-yellow. The palpi are short, and of a reddish-yellow colour, with the exception of the

digital joint, which has a brown hue; the cubital joint has a long bristle in front, and the radial joint is prominent on the outer side; the digital joint is oval, with a brownish-black, glossy process at its base curved outwards; it is convex and hairy externally, concave within, comprising the palpal organs, which are highly developed, very protuberant, complex in structure, with two processes at their extremity, one of which is much larger and more obtuse than the other, and two on the outer side, the posterior one, which is somewhat convex, being much the most prominent; the colour of these organs is dark and light reddish-brown intermixed. The convex sides of the digital joints are directed towards each other. The eyes are seated on black spots on the anterior part of the cephalothorax; the four intermediate ones are placed on a prominence, and nearly form a square, the two anterior ones, which are the largest of the eight, being rather wider apart than the two posterior ones; the eyes of each lateral pair are seated obliquely on a tubercle, and are near to each other, but not in contact. The abdomen is oviform, hairy, moderately convex above, and projects over the base of the cephalothorax; the upper part is soot-coloured, with some dull yellow intermixed; it has three short yellow streaks in front, and a row of depressed brownish-black spots on each side of the medial line; the sides, which are soot-coloured, are palest in the medial line, and a yellow band, comprising a series of somewhat triangular black spots, extends along the upper part of each; the under part has a brownish-yellow hue; a large brownish-black quadrilateral mark, surrounded by a pale yellow border, occurs in the middle, and there are a few pale yellow spots about the base of the spinners.

Epeira Grayii.

Length of the female $\frac{2}{5}$ ths of an inch; length of the cephalothorax $\frac{1}{6}$; breadth $\frac{1}{8}$; breadth of the abdomen $\frac{3}{10}$; length of an anterior leg $\frac{1}{2}$; length of a leg of the third pair $\frac{5}{16}$.

The legs are moderately long, slender, provided with hairs and fine spines, and are of a brownish-yellow hue, with black annuli; the first pair is the longest, then the fourth, and the third pair is the shortest; the tarsi are terminated by claws of the usual number and structure. The palpi, which are short, resemble the legs in colour, and have a curved pectinated claw at their extremity. The cephalothorax is compressed before, rounded on the sides, truncated in front, sparingly clothed with short grey hairs, convex, glossy, and marked with furrows on the sides, which converge towards a large indentation in the medial line; the falces are powerful, conical, vertical, and armed with teeth on the inner surface. These parts have a brownish-

red colour, that of the extremity of the falces being brownish-black. The maxillæ are short, strong, straight, and greatly enlarged and rounded at the extremity; the lip is semicircular, but somewhat pointed at the apex; and the sternum is heart-shaped, with small prominences on the sides, opposite to the legs. These parts are of a brownish-black colour, the extremity of the maxillæ and the apex of the lip having a pale yellowish-brown tint. The eyes are seated on black spots on the anterior part of the cephalothorax; the four intermediate ones are placed on a prominence and nearly form a square, the two posterior ones being the largest of the eight; the eyes of each lateral pair are seated on a small tubercle, and are near to each other, but not in contact. The figure of the abdomen is oblong-oviform, with three conical protuberances at the anterior extremity of the upper part, the intermediate one of which is much the largest, and is directed forwards; the posterior extremity is rounded, and extends considerably beyond the spinners; it is glossy, thinly clothed with short hairs, and projects greatly over the base of the cephalothorax; the colour of the upper part is black, a longitudinal pale yellow band extending from the point of each protuberance to its posterior extremity; the intermediate band is the broadest, and in the black space on each side of it there is a longitudinal row of orange-brown spots; the sides are black, with a row of orange-brown spots extending along their upper part, and immediately below it there is a parallel row of minute pale yellow spots; the inferior surface of the anterior extremity has an orange-red hue, and the under part is of a pale yellow colour, with a broad black band, including the sexual organs and spinners, extending along the middle; beyond the spinners three transverse pale yellow spots occur; the branchial opercula have a brown hue, and the sexual organs, which are prominent and glossy, have a small, obtuse, slightly curved process, connected with their posterior margin, which is directed backwards. Some individuals have a short yellow streak in the medial line of the anterior part of the sternum.

The male is smaller and less distinctly marked than the female, but the design formed by the distribution of their colours is similar in both sexes. The legs of the only male I have seen were mutilated, but judging from the dimensions of the femora, which remained entire, it would appear that in their relative length they do not differ from those of the female: the colour of the femora of the first and second pairs is brownish-black, with the exception of the base, which has a brownish-yellow hue. The palpi are short, and of a brownish-yellow colour, the digital joint excepted, which has a brown-black hue; the radial is stronger than the cubital joint, and is prominent on the outer

side; the digital joint is oval, with an obtuse, glossy, black process at its base curved outwards; it is convex and hairy externally, concave within, comprising the palpal organs, which are highly developed, prominent, complicated in structure, with several obtuse and acute processes at their extremity, the most conspicuous of which is crescent-shaped, and are of a dark reddish-brown colour intermixed with yellowish-brown. The convex sides of the digital joints are directed towards each other.

I have much pleasure in connecting the name of that enterprising traveller and zealous naturalist, John Gray, Esq., of Bolton, with this elegant *Epeira*, which is remarkable for having the fourth pair of legs longer than the second pair.

Epeira astuta.

Length of the female $\frac{5}{16}$ ths of an inch; length of the cephalothorax $\frac{3}{10}$; breadth $\frac{1}{10}$; breadth of the abdomen $\frac{1}{10}$; length of an anterior leg $\frac{1}{2}\frac{5}{4}$; length of a leg of the third pair $\frac{7}{4}$.

The eyes are seated on black spots on the anterior part of the cephalothorax; the four intermediate ones form a square, the two anterior ones, which are placed on a prominence, being rather the largest and darkest of the eight; the eyes of each lateral pair are seated obliquely on a tubercle, and are near to each other, but not in contact. The cephalothorax is compressed before, rounded on the sides, sparingly clothed with whitish hairs, convex, glossy, and has an indentation in the medial line; the falces are powerful, conical, convex in front, vertical, and armed with a few teeth on the inner surface. These parts have a brownish-red colour, a brown band extending along the middle, and another, of the same hue, above each lateral margin of the former. The maxillæ are short, straight, and enlarged and rounded at the extremity; and the lip is semicircular, but somewhat pointed at the apex. These organs are of a dark brown colour, their extremities having a yellowish-white hue. The sternum is heart-shaped, with small eminences on the sides, opposite to the legs, and has a reddish-brown hue, with a tinge of yellow in the medial line. The legs are long, provided with hairs and spines, and have a brownish-yellow hue, the extremity of the joints being tinged with brown; the first pair is the longest, then the fourth, and the third pair is the shortest; the tarsi are terminated by claws of the usual number and structure. The palpi resemble the legs in colour, and have a curved pectinated claw at their extremity. The abdomen is oviform, moderately hairy, convex above, and projects over the base of the cephalothorax and slightly beyond the spinners; the upper part is of a yellowish-brown colour; a yellowish-white medial band, whose sinuous margins are finely bordered with black, tapers from the anterior to the

posterior extremity, and comprises a pale brown dentated band, tinged with dull yellow in the medial line; a series of minute oblong black spots, bordered externally with yellowish-white, extends along each side of the medial band; and the sides, which are marked with numerous longitudinal black streaks, have a yellowish-white band extending along their upper part; the colour of the under part is brownish-black; there is a pale yellowish-white band on each side, whose posterior extremity is enlarged, and a spot of the same hue occurs on each side of the dark brown inferior pair of spinners; the sexual organs, which are well developed, and of a dark red-brown colour, have a strong process connected with their anterior margin, which is directed downwards, slightly curved backwards, and is hollowed at its extremity.

Epeïra scitula.

Length of the female $\frac{1}{4}$ th of an inch; length of the cephalothorax $\frac{1}{10}$; breadth $\frac{1}{16}$; breadth of the abdomen $\frac{1}{10}$; length of a posterior leg $\frac{1}{4}$; length of a leg of the third pair $\frac{3}{16}$.

The legs are slender, provided with hairs, and have a yellowish-brown hue, with black annuli; the fourth pair is the longest, then the first, and the third pair is the shortest; the tarsi are terminated by claws of the usual number and structure. The palpi resemble the legs in colour, and have a curved slightly pectinated claw at their extremity. The cephalothorax is compressed before, rounded in front and on the sides, thinly clothed with short hairs, convex, glossy, and has an indentation in the medial line; the falces are powerful, conical, vertical, convex at the base in front, and armed with teeth on the inner surface. These parts have a brownish-red hue, the falces being soot-coloured at the extremity. The maxillæ are short, straight, and enlarged and rounded at the extremity; the lip is semicircular, but somewhat pointed at the apex; and the sternum is heart-shaped, with small eminences on the sides, opposite to the legs. These parts are of a red-brown colour; the lip is the brownest, and obscure brown lines converge from the margins of the sternum to its centre. The eyes are seated on black spots on the anterior part of the cephalothorax; the four intermediate ones are placed on a prominence, and form a square, those of the posterior pair being the largest of the eight; the eyes of each lateral pair are seated obliquely on a small tubercle, and are near to each other, but not in contact. The abdomen is somewhat oviform, terminating in a conical protuberance situated high above the spinners; it is thinly clothed with hairs, convex above, and projects over the base of the cephalothorax; it is of a yellowish-olive colour, with a few black spots distributed irregularly; a yellowish-white

band, comprising several longitudinal and transverse dark-coloured streaks, tapers from the anterior extremity of the upper part to the posterior conical protuberance; a yellowish-white band extends along the upper part of each side, and a line of the same hue passes from each red-brown branchial operculum nearly to the spinners, which are of a dark brown colour, and have at their base yellowish-white spots on the sides and underneath; the sexual organs are highly developed, prominent, of a dark brown colour, slightly tinged with red, and have in connexion with their anterior margin a short, somewhat pointed process, hollowed on the outer side, which is directed obliquely downwards and backwards.

◁ This species differs remarkably from the more typical forms of its congeners in having the posterior legs the longest,

The genus *Epeira*, as at present characterized, requires amending with regard to the relative length of the legs, which is now known to vary in different species.

GENUS PLECTANA, Walck.

Plectana tricuspidata.

Length of the female $\frac{1}{6}$ th of an inch; length of the cephalothorax $\frac{1}{18}$; breadth $\frac{1}{20}$; breadth of the abdomen $\frac{3}{18}$; length of a posterior leg $\frac{3}{18}$; length of a leg of the third pair $\frac{1}{8}$.

The cephalothorax, which is nearly concealed by the projecting abdomen, is slightly compressed before, rounded on the sides, depressed in the posterior and convex in the cephalic region; the falcæ are small, conical, and vertical; the maxillæ are short, straight, powerful, and greatly enlarged and rounded at the extremity; the lip is semicircular, and the sternum is heart-shaped; the legs are short and sparingly provided with hairs; the fourth pair is the longest, then the first, and the third pair is the shortest; the palpi are short and slender. These parts are glossy and of a dark brown colour, tinged with red, the cephalothorax being the darkest, and the palpi and sternum much the palest. The eyes are situated on the anterior part of the cephalothorax, and are nearly equal in size; the four intermediate ones almost form a square, but the two posterior eyes are rather wider apart than the anterior ones, which are seated on a tubercle and are prominent; those of each lateral pair are placed obliquely on a tubercle, and are nearly in contact. The abdomen is triangular, with its vertex directed backwards; its integument is corneous and glossy, and a long acute spine projects obliquely upwards from each angle of the upper part, that at the vertex being rather the longest; it is depressed above, convex underneath, where the spinners are situated, and has

several deep furrows on the sides and posterior part; the colour of the upper part is dull yellow, the spines having a reddish tint, which is darkest at their point; a fine ramified dark brown line extends along the middle, on each side of the anterior part of which three parallel, minute, dark brown depressions are disposed longitudinally; four similar depressions extend in a row along the posterior part of each side, which is obscurely reticulated throughout its entire length with fine dark lines; the under part has a brownish-black hue; a dull yellow spot occurs on each side of its anterior extremity, near the cephalothorax, and a space of a similar colour surrounds the prominent black rim which encircles the spinners, except at its posterior part, from which a brownish-black band extends along the under side of the long spine at the vertex of the triangle formed by the abdomen, where it terminates in a point; the sexual organs have a brownish-black hue, and that of the branchial opercula is reddish-brown.

Genus GALENA, Koch.

Galena zonata.

Galena zonata, Koch, Die Arachn., Band xii. p. 105, tab. 419. fig. 1032.
Epeira galena, Walck., Hist. Nat. des Insect. Apt., tom. iv. p. 562.

Length of the female $\frac{1}{4}$ th of an inch; length of the cephalothorax $\frac{1}{8}$; breadth $\frac{1}{12}$; breadth of the abdomen $\frac{1}{6}$; length of an anterior leg $\frac{2}{3}$; length of a leg of the third pair $\frac{7}{4}$.

The legs are very long, the first and second pairs in particular, and are provided with hairs and spines; on the anterior side of the tibiæ and metatarsi of the first and second pairs a series of long, prominent, slightly curved spines occurs, and in each of the rather wide intervals by which they are separated a row of shorter curved spines is situated, which gradually increase in length as they extend down the limb; the femora, genua, extremity of the tibiæ, metatarsi, and tarsi of the first and second pairs are of a reddish-brown colour, the metatarsi and tarsi being the palest, and the tibiæ, with the exception of their extremity, have a dull yellow hue; the third and fourth pairs are slender, and of a dull yellow colour; a fine reddish-brown line extends along the upper surface of the anterior part of the femora and the entire length of the tibiæ of both pairs, and one of the same hue passes along the superior surface of the metatarsi of the fourth pair; each tarsus is terminated by three claws; the two superior ones are curved and pectinated, and the inferior one is inflected near its base. The palpi are slender, and have a curved pectinated claw at their extremity; they are of a dull yellow colour, the cubital joint being the palest, and have a fine reddish-brown line extending along the upper part

of the humeral and radial joints. The cephalothorax is long, compressed before, rounded on the sides, gibbous in the middle, glossy, and has a small circular indentation in the medial line; the colour of the anterior part is red-brown, diminishing gradually in breadth towards the medial indentation, near which it terminates in a point; the sides are tinged with the same hue, and the colour of the remaining portion is yellow-brown. The falces are long, conical, vertical, and armed with a curved fang and some long and very fine teeth near the extremity, on the inner surface; the maxillæ are straight, except at the extremity, which is somewhat enlarged, obliquely truncated on the inner side, and curved upon the lip; the lip is large, longer than broad, and rounded at the apex. These parts are of a red-brown colour, the extremity of the maxillæ and lip having a yellow-brown hue. The sternum is heart-shaped, and of a pale reddish-brown colour, with a transverse dark red-brown line between the coxæ of the second pair of legs. The eyes are disposed on the anterior part of the cephalothorax, and are unequal in size; the two anterior eyes of the four intermediate ones are the largest of the eight, are seated on a prominent tubercle, and are wider apart than the two posterior ones, and those of each lateral pair, which are the smallest, are placed obliquely on a minute tubercle, and are contiguous. The abdomen is short, broad, thinly clothed with hairs, convex above, and projects over the base of the cephalothorax; the upper part is of a pale-yellow colour, finely reticulated with reddish-brown; on each side of the anterior part there is a conspicuous, oval, yellowish-white spot bordered with reddish-brown; to these spots succeed four pale, narrow, transverse bands bordered by fine reddish-brown lines which are confluent in the medial line; and a large triangular reddish-brown spot, having its vertex directed forwards, and comprising near its base a small spot of a dull yellowish hue, is situated immediately above the spinners; at the extremity of the under part there is a large, reddish-brown, and somewhat crescent-shaped mark whose extremities extend to the sides; the sexual organs are rather prominent, and of a dark reddish-brown colour, with a longitudinal yellowish-brown septum in the middle.

The male differs from the female in several particulars: it is smaller, the cephalothorax is shorter, and, with the falces and sternum, is of a pale dull-yellow colour; a transverse red-brown line occurs on its gibbosity, and there is a fine line of the same hue across the sternum, between the coxæ of the second pair of legs. The maxillæ and lip have a yellowish-brown hue. The colours of the abdomen are paler in the male than in the female, but the design formed by their distribution is the same in both

sexes. The palpi are remarkably long, measuring $\frac{2}{5}$ inch, very slender, and of a yellowish-brown colour, the radial joint being the brownest; this joint greatly exceeds the cubital in length, and is somewhat enlarged at its extremity, which is supplied with several long and fine spines; the digital joint is short and of an irregular figure; the extremity is depressed, with a transverse, curved, dark red-brown rib underneath, terminating in a protuberance on the outer side, and is much broader than the base, which is convex and hairy externally, concave within, and comprises the palpal organs; these organs are highly developed, prominent, and consist of a red-brown spiral process, whose pointed termination is black, and has some pale yellowish-brown membrane contiguous to it.

The collection of *Araneidea* made in Rio Janeiro by Messrs. Gray and Clark contained three adult females and one male of this handsome and remarkable spider, which appears to be most nearly allied to the *Epeiridæ* by its organization; but I am not able to state in what degree its habits and economy tend to establish this relation of affinity.

An imperfect description and figure of the male have been given by M. Koch from a specimen in the museum at Berlin, probably the only one then known to arachnologists; but he has fallen into the error of supposing it to be indigenous to Africa. Walckenaer has evidently made his brief description of this species from Koch's figure of the male.

Genus TETRAGNATHA, Latr.

Tetragnatha splendens.

Length of the female $\frac{5}{8}$ ths of an inch; length of the cephalothorax $\frac{1}{10}$; breadth $\frac{1}{12}$; breadth of the abdomen $\frac{1}{12}$; length of an anterior leg $\frac{7}{10}$; length of a leg of the third pair $\frac{1}{4}$.

The eyes, which are seated on black spots, and are nearly equal in size, are disposed in two transverse rows on the anterior part of the cephalothorax; the four intermediate ones form a trapezoid whose anterior side is rather the shortest, and those of each lateral pair are placed on a small tubercle and are nearly in contact. The cephalothorax is compressed before, rounded on the sides, truncated in front, moderately convex, glossy, with slight furrows on the sides converging towards a large indentation in the medial line; the falces are short, strong, conical, vertical, and armed with a few teeth on the inner surface; the sternum is heart-shaped; the legs are long, slender, and provided with hairs and fine spines; the first pair is the longest, then the second, and the third pair is much the shortest; each tarsus is terminated by claws of the usual number and structure;

the palpi are slender, and have a curved slightly pectinated claw at their extremity. These parts are of a dull yellow colour, the metatarsal and tarsal joints of the legs and the digital joint of the palpi being tinged with brown. The maxillæ are slightly divergent, and increase in breadth from the base to the extremity, which is somewhat angular on the outer side; and the lip is semicircular. These organs are of a red-brown colour. The abdomen is subcylindrical, sparingly clothed with short hairs, and projects a little over the base of the cephalothorax; the upper part and sides have a bright silvery lustre, with a slight golden tinge, which is deepest on the latter, and a dark brown ramified band extends along the middle of the former; the posterior extremity, which projects considerably beyond the spinners, has a yellowish-brown colour, and comprises two parallel spots of a silvery lustre placed transversely; the under part has a yellowish-brown hue, with minute spots and a somewhat semicircular transverse band of a silvery lustre with a slight golden tinge; the sexual organs are small, and of a dark reddish-brown colour, with a yellowish-brown longitudinal septum in the middle; and the branchial opercula have a dull yellow hue.

Tetragnatha formosa.

Length of the female $\frac{1}{4}$ th of an inch; length of the cephalothorax $\frac{1}{10}$; breadth $\frac{1}{12}$; breadth of the abdomen $\frac{1}{10}$; length of an anterior leg $\frac{2}{3}$; length of a leg of the third pair $\frac{7}{8}$.

The abdomen is robust, subcylindrical, very prominent at the anterior extremity, and projects greatly over the base of the cephalothorax; the upper part and sides have a bright silvery lustre, the latter having a slight golden tinge; along the middle of the former a black band extends, which is crossed near its anterior extremity by a strongly curved brownish-black line, within whose curvature there is a short transverse line of the same hue; on each side of the medial band a shorter parallel black band occurs; these bands, which commence near the extremities of the curved line, are connected anteriorly by a transverse black line, and laterally by four oblique lines of the same hue, disposed in pairs and inclined towards each other; on each side there are two longitudinal brownish-black bands, the superior one of which is connected at its posterior extremity with the lateral band of the upper part by a black bar; the posterior extremity of the abdomen is black, and comprises eight silvery spots disposed in pairs, which diminish in size as they approach the spinners, towards which they converge; the under part is of a brown colour, with minute spots, a short streak directed backwards from the posterior margin of each branchial operculum, and a somewhat semicircular band, of a silvery lustre, with a

slight golden tinge; the space comprised within the semicircle and the spinners has a brown-black hue, and a minute silvery spot occurs on each side of the latter, at their base; the sexual organs are moderately developed, with a longitudinal septum in the middle, and are of a dark reddish-brown colour, that of the branchial opercula being yellow-brown. The cephalothorax is compressed before, rounded on the sides, truncated in front, slightly convex, glossy, with furrows on the sides, converging towards a large indentation in the medial line; it is of a dull yellow colour, the lateral margins and a small cruciform spot in the medial indentation having a brown hue. The falces are short, powerful, conical, vertical, armed with a few teeth on the inner surface, and of a dull yellow colour, tinged with brown towards the outer side, and of a dark brown hue at the extremity. The maxillæ are divergent, and increase in breadth from the base to the extremity, which is angular on the outer side; and the lip is semicircular and prominent at its apex. These organs have a brown-black hue. The sternum is heart-shaped, with small prominences on the sides, opposite to the legs, and is of a red-brown colour. The legs are long, slender, provided with hairs and are of a dull yellow colour; the joints have a dark brown hue at the extremity, and the metatarsi and tarsi are tinged with brown; the first pair is the longest, then the second, and the third pair is much the shortest; the tarsi are terminated by claws of the usual number and structure. The palpi are slender, and have a curved slightly pectinated claw at their extremity; they resemble the legs in colour, but the joints are not marked with dark brown at the extremity. The eyes are seated on black spots, and are disposed in two transverse rows on the anterior part of the cephalothorax; the four intermediate ones form a trapezoid whose anterior side is rather the shortest, and those of each lateral pair are placed on a small tubercle, and are nearly in contact; the two anterior eyes of the trapezoid are somewhat the largest and darkest of the eight.

This and the preceding species of *Tetragnatha* belong to M. Walckenaer's second family of the genus, the *Coadunata*, and bear a marked resemblance to certain spiders of the genus *Nephila*.

Tribe Senoculina.

Family DYSDERIDÆ.

Genus DYSDERA, Latr.

Dysdera crassipalpus.

Length of the male $\frac{3}{8}$ ths of an inch; length of the cephalo-

thorax $\frac{1}{6}$; breadth $\frac{1}{10}$; breadth of the abdomen $\frac{1}{8}$; length of an anterior leg $\frac{7}{12}$; length of a leg of the third pair $\frac{2}{3}$.

The cephalothorax is large, oval, glossy, moderately convex, with slight furrows on the sides converging towards a small indentation in the medial line, and is of a dark brown colour tinged with red. The eyes are nearly equal in size, and are grouped on the anterior part of the cephalothorax in the form of a small oval open in front; the two intermediate ones are near to each other, and those of each lateral pair are seated obliquely on a tubercle, and are almost in contact. The falcæ are small, conical, rather prominent, and are armed with a short curved fang at the extremity, but have no teeth on the inner surface; the maxillæ are straight, greatly dilated at the base, where the palpi are inserted, and somewhat enlarged at the extremity, which is rounded on the outer side; the lip is long and truncated at the apex; the sternum, which has an oval form, is narrower at its anterior than at its posterior extremity, and has small prominences on the sides, opposite to the legs. These parts have a red-brown hue, the sternum and the base of the lip being much the darkest. The legs are robust, provided with hairs and with sessile spines on the inferior surface of the tibiæ and metatarsi of all except those of the posterior pair, and are of a yellowish-brown colour; the first pair is the longest, then the second, and the third pair is the shortest; each tarsus is terminated by three claws; the two superior ones are curved and pectinated, and the inferior one is small and inflected near its base. The palpi are strong and of a yellowish-white colour, with the exception of the axillary joint, which has a red-brown hue; the radial is very much larger than the cubital joint, and has the appearance of being swollen; the digital joint is short, oval, convex and hairy externally, and the palpal organs are connected with its inferior surface by a short pedicle; these organs are highly developed, and somewhat resemble Rupert's drops in form, being subglobose at the base and terminating in a long curved process gradually tapering to a point; they are of a pale red-brown colour, with a transverse yellowish-white band extending from the base of the subglobose part to its extremity. The abdomen is short, oviform, convex above, thinly clothed with fine hairs, and of a dull olive-green hue; a large semicircular mark at its anterior extremity, from which a fusiform band, bifid at its termination, extends along the middle of the upper part rather more than a third of its length, and a series of short transverse curved bars between this band and the spinners are of a dark puce-colour; an oblong spot of the same hue is directed forwards from each side of the spinners, which have a pale yellowish-brown tint; the branchial opercula and tracheal stigmata are of

a pale dull yellow colour; an obscure line of the same hue extends from each of the latter nearly to the spinners, where the two meet, and between the former a reddish-brown protuberance is situated.

VIII.—*On some new British Hydroids.*

By the Rev. THOMAS HINCKS, B.A.

[Plate IX. vol. x. figs. 3, 4.]

Fam. Tubulariadae.

GENUS ATRACTYLIS, Strethill Wright.

A. margarica, n. sp. Pl. IX. fig. 4.

Polypary a network of delicate anastomosing tubes, from which rise at intervals small chitinous cups, somewhat funnel-shaped, which invest the base of the polypes and of the gonophores. *Polypes* white, scattered, slightly retractile; the body elongate, expanding towards the upper extremity, which is encircled by a verticil of about twenty-four muricate tentacles, alternately erect and depressed. Half of them are furnished near the base with a prominent cluster of large bean-shaped thread-cells, which projects outwards as a pearly boss or tubercle. This gem-like setting round the tentacular ring gives a very beautiful and distinctive appearance to the species. *Gonophores* produced on the creeping stem, close to a polype, either singly or in pairs, of large size, pedunculate, the pedicle tapering towards the point of attachment, and sheathed at the base in a chitinous tube, sub-globular, crowned by a kind of lid (Pl. IX. fig. 4 *b*), which seems to be cast off as development proceeds. From the bottom of the sporosac, which occupies the whole interior of the gonophore, rise four branched processes, of an orange-colour (representatives of the gæstrovacular canals), which, as it were, embrace the ova. The latter are produced in great numbers (300 in a single gonophore), and exhibit a very distinct vesicle and spot.

Habitat. Ilfracombe; abundant on *Flustra foliacea*, and on this only, from about 10 fathoms.

In this very singular and beautiful species, the character which at once attracts attention is the series of projecting bosses round the base of the tentacular ring. When examined with the microscope, these are seen to consist of a number of elongate bean-shaped thread-cells (fig. 4 *x*), which are piled together so as to form silvery-white prominences on the lower side of the tentacles. They occur, I believe, only on the alternate arms, and constitute a unique garniture.